

Gunter, Jason

From: Seabourne, Rocky <rseabourne@doerun.com>
Sent: Tuesday, December 15, 2015 8:05 AM
To: 'brandon.wiles@dnr.mo.gov'; Gunter, Jason; Montgomery, Michael; Neaville, Chris; Ty Morris; Yingling, Mark
Subject: Emailing: November progress report
Attachments: November progress report.pdf; 2015-11-10 LW NPDES Pace Lab Report.pdf
Categories: Red Category

Your message is ready to be sent with the following file or link attachments:

November progress report

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Superfund

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12/15/15



Remediation Group

Rocky Seabourne
General Supervisor Land and Remediation
rseabourne@doerun.com

December 10, 2015

Mr. Jason Gunter
Remedial Project Manager
U.S. Environmental Protection Agency
Region 7 - Superfund Branch
11201 Renner Blvd.
Lenexa, KS 66219

Re: The Doe Run Company - Leadwood Mine Tailings Site Monthly Progress Report

Dear Mr. Gunter:

As required by Article VI, Section 50 of the Unilateral Administrative Order (Docket No. CERCLA-07-2006-0272) for the referenced project and on behalf of The Doe Run Company, the progress report for the period November 1, 2015 through November 30, 2015 is enclosed. If you have any questions or comments, please call me at 573-244-8136.

Sincerely,

Rocky Seabourne
General Supervisor Land and Remediation

Enclosures

c: Mark Yingling – TDRC (electronic only)
Chris Neaville – TDRC (electronic only)
Michael Montgomery – TDRC (electronic only)
Brandon Wiles – MDNR
Ty Morris – Barr Engineering

35 Iron County Rd. #1, Viburnum, MO 65566
Telephone: (573) 244-8136

Leadwood Mine Tailings Site
Leadwood, Missouri
Removal Action - Monthly Progress Report
Period: November 1, 2015 – November 30, 2015

1. Actions Performed or Completed This Period:

- a. Work continued on the development of the Post Removal Site Control Plan for the site.

2. Data and Results Received This Period:

- a. During this period, water samples were collected from downstream of Leadwood Dam and the East Seep and Erosion Area, as well as from upstream and downstream of the confluence of Eaton Creek with Big River. The analytical results for this event are included with this progress report.

3. Scheduled Activities not Completed This Period:

- a. None.

4. Planned Activities for Next Period:

- a. Continue developing the Post Removal Site Control Plan for the site.
- b. Complete the water sampling activities.

5. Changes in Personnel:

- a. None.

6. Issues or Problems Arising This Period:

- a. None.

7. Resolution of Issues or Problems Arising This Period:

- a. None.



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

November 18, 2015

Amy Sanders
The Doe Run Company
P. O. Box 500
Viburnum, MO 65566

RE: Project: NPDES (Leadwood)
Pace Project No.: 60207041

Dear Amy Sanders:

Enclosed are the analytical results for sample(s) received by the laboratory on November 11, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Church
jamie.church@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NPDES (Leadwood)

Pace Project No.: 60207041

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 15-016-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407

Utah Certification #: KS00021

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SAMPLE SUMMARY

Project: NPDES (Leadwood)
Pace Project No.: 60207041

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60207041001	39574/LEADWOOD DOWNSTREAM	Water	11/10/15 09:12	11/11/15 08:45
60207041002	39575/LEADWOOD UPSTREAM	Water	11/10/15 09:34	11/11/15 08:45
60207041003	39576/LEADWOOD 001	Water	11/10/15 08:49	11/11/15 08:45
60207041004	39577/LEADWOOD 002	Water	11/10/15 08:30	11/11/15 08:45

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SAMPLE ANALYTE COUNT

Project: NPDES (Leadwood)
Pace Project No.: 60207041

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60207041001	39574/LEADWOOD DOWNSTREAM	EPA 200.7	SMW	6	PASI-K
		EPA 200.7	NDJ	3	PASI-K
		SM 2540D	CRS	1	PASI-K
		EPA 300.0	AJM	1	PASI-K
60207041002	39575/LEADWOOD UPSTREAM	EPA 200.7	SMW	6	PASI-K
		EPA 200.7	NDJ	3	PASI-K
		SM 2540D	CRS	1	PASI-K
		EPA 300.0	AJM	1	PASI-K
60207041003	39576/LEADWOOD 001	EPA 200.7	SMW	3	PASI-K
		SM 2540D	CRS	1	PASI-K
		SM 2540F	CRS	1	PASI-K
		EPA 300.0	AJM	1	PASI-K
60207041004	39577/LEADWOOD 002	EPA 200.7	SMW	3	PASI-K
		SM 2540D	CRS	1	PASI-K
		SM 2540F	CRS	1	PASI-K
		EPA 300.0	AJM	1	PASI-K

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ANALYTICAL RESULTS

Project: NPDES (Leadwood)
Pace Project No.: 60207041

Sample: 39574/LEADWOOD DOWNSTREAM Lab ID: 60207041001 Collected: 11/10/15 09:12 Received: 11/11/15 08:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium	<0.56	ug/L	5.0	0.56	1	11/12/15 14:00	11/13/15 13:11	7440-43-9	
Calcium	51000	ug/L	100	5.2	1	11/12/15 14:00	11/13/15 13:11	7440-70-2	
Lead	2.4J	ug/L	5.0	1.9	1	11/12/15 14:00	11/13/15 13:11	7439-92-1	
Magnesium	30900	ug/L	50.0	13.3	1	11/12/15 14:00	11/13/15 13:11	7439-95-4	
Total Hardness by 2340B	254000	ug/L	500		1	11/12/15 14:00	11/13/15 13:11		
Zinc	25.6J	ug/L	50.0	2.6	1	11/12/15 14:00	11/13/15 13:11	7440-66-6	
200.7 Metals, Dissolved (LF) Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium, Dissolved	<0.56	ug/L	5.0	0.56	1	11/17/15 16:40	11/18/15 12:28	7440-43-9	
Lead, Dissolved	<1.9	ug/L	5.0	1.9	1	11/17/15 16:40	11/18/15 12:28	7439-92-1	
Zinc, Dissolved	17.1J	ug/L	50.0	2.6	1	11/17/15 16:40	11/18/15 12:28	7440-66-6	
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		11/12/15 12:20		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	37.7	mg/L	5.0	1.2	5		11/13/15 11:02	14808-79-8	

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ANALYTICAL RESULTS

Project: NPDES (Leadwood)

Pace Project No.: 60207041

Sample: 39575/LEADWOOD UPSTREAM Lab ID: 60207041002 Collected: 11/10/15 09:34 Received: 11/11/15 08:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium	<0.56	ug/L	5.0	0.56	1	11/12/15 14:00	11/13/15 13:14	7440-43-9	
Calcium	46500	ug/L	100	5.2	1	11/12/15 14:00	11/13/15 13:14	7440-70-2	
Lead	<1.9	ug/L	5.0	1.9	1	11/12/15 14:00	11/13/15 13:14	7439-92-1	
Magnesium	28800	ug/L	50.0	13.3	1	11/12/15 14:00	11/13/15 13:14	7439-95-4	
Total Hardness by 2340B	235000	ug/L	500		1	11/12/15 14:00	11/13/15 13:14		
Zinc	<2.6	ug/L	50.0	2.6	1	11/12/15 14:00	11/13/15 13:14	7440-66-6	
200.7 Metals, Dissolved (LF) Analytical Method: EPA 200.7 Preparation Method: EPA 200.7									
Cadmium, Dissolved	0.61J	ug/L	5.0	0.56	1	11/17/15 16:40	11/18/15 12:31	7440-43-9	
Lead, Dissolved	<1.9	ug/L	5.0	1.9	1	11/17/15 16:40	11/18/15 12:31	7439-92-1	
Zinc, Dissolved	<2.6	ug/L	50.0	2.6	1	11/17/15 16:40	11/18/15 12:31	7440-66-6	
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		11/12/15 12:20		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Sulfate	21.7	mg/L	2.0	0.47	2		11/13/15 11:17	14808-79-8	

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ANALYTICAL RESULTS

Project: NPDES (Leadwood)

Pace Project No.: 60207041

Sample: 39576/LEADWOOD 001 Lab ID: 60207041003 Collected: 11/10/15 08:49 Received: 11/11/15 08:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	3.4J	ug/L	5.0	0.56	1	11/12/15 14:00	11/13/15 13:18	7440-43-9	
Lead	4.2J	ug/L	5.0	1.9	1	11/12/15 14:00	11/13/15 13:18	7439-92-1	
Zinc	3990	ug/L	50.0	2.6	1	11/12/15 14:00	11/13/15 13:18	7440-66-6	
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		11/12/15 12:21		
2540F Total Settleable Solids		Analytical Method: SM 2540F							
Total Settleable Solids	<0.20	mL/L/hr	0.20	0.20	1		11/11/15 12:45		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	444	mg/L	25.0	5.9	25		11/13/15 11:33	14808-79-8	

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ANALYTICAL RESULTS

Project: NPDES (Leadwood)

Pace Project No.: 60207041

Sample: 39577/LEADWOOD 002 Lab ID: 60207041004 Collected: 11/10/15 08:30 Received: 11/11/15 08:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	4.0J	ug/L	5.0	0.56	1	11/12/15 14:00	11/13/15 13:21	7440-43-9	
Lead	38.8	ug/L	5.0	1.9	1	11/12/15 14:00	11/13/15 13:21	7439-92-1	
Zinc	6710	ug/L	50.0	2.6	1	11/12/15 14:00	11/13/15 13:21	7440-66-6	
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids	<5.0	mg/L	5.0	5.0	1		11/12/15 12:22		
2540F Total Settleable Solids		Analytical Method: SM 2540F							
Total Settleable Solids	<0.20	mL/L/hr	0.20	0.20	1		11/11/15 12:45		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	494	mg/L	50.0	11.8	50		11/13/15 11:48	14808-79-8	

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Date: 11/18/2015 03:19 PM

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QUALITY CONTROL DATA

Project: NPDES (Leadwood)
Pace Project No.: 60207041

QC Batch: MPRP/33894 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60207041001, 60207041002, 60207041003, 60207041004

METHOD BLANK: 1667617 Matrix: Water
Associated Lab Samples: 60207041001, 60207041002, 60207041003, 60207041004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium	ug/L	<0.56	5.0	0.56	11/13/15 12:54	
Calcium	ug/L	<5.2	100	5.2	11/13/15 12:54	
Lead	ug/L	<1.9	5.0	1.9	11/13/15 12:54	
Magnesium	ug/L	<13.3	50.0	13.3	11/13/15 12:54	
Total Hardness by 2340B	ug/L	2.2J	500		11/13/15 12:54	
Zinc	ug/L	<2.6	50.0	2.6	11/13/15 12:54	

LABORATORY CONTROL SAMPLE: 1667618

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	1000	958	96	85-115	
Calcium	ug/L	10000	9290	93	85-115	
Lead	ug/L	1000	997	100	85-115	
Magnesium	ug/L	10000	9270	93	85-115	
Total Hardness by 2340B	ug/L		61400			
Zinc	ug/L	1000	945	94	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1667619 1667620

Parameter	Units	60207040001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	ug/L	<0.56	1000	1000	904	962	90	96	70-130	6	20	
Calcium	ug/L	90500	10000	10000	98700	101000	83	109	70-130	3	20	
Lead	ug/L	6.3	1000	1000	903	961	90	96	70-130	6	20	
Magnesium	ug/L	49900	10000	10000	58300	60300	84	103	70-130	3	20	
Total Hardness by 2340B	ug/L	432000			487000	501000				3		
Zinc	ug/L	103	1000	1000	972	1030	87	92	70-130	5	20	

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QUALITY CONTROL DATA

Project: NPDES (Leadwood)
Pace Project No.: 60207041

QC Batch: MPRP/33964 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Dissolved
Associated Lab Samples: 60207041001, 60207041002

METHOD BLANK: 1670672 Matrix: Water
Associated Lab Samples: 60207041001, 60207041002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cadmium, Dissolved	ug/L	<0.56	5.0	0.56	11/18/15 12:17	
Lead, Dissolved	ug/L	<1.9	5.0	1.9	11/18/15 12:17	
Zinc, Dissolved	ug/L	<2.6	50.0	2.6	11/18/15 12:17	

LABORATORY CONTROL SAMPLE: 1670673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	ug/L	1000	996	100	85-115	
Lead, Dissolved	ug/L	1000	1020	102	85-115	
Zinc, Dissolved	ug/L	1000	1010	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1670674 1670675

Parameter	Units	60207040001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium, Dissolved	ug/L	0.57J	1000	1000	1050	1010	105	101	70-130	5	20	
Lead, Dissolved	ug/L	6.3	1000	1000	1060	1010	105	100	70-130	5	20	
Zinc, Dissolved	ug/L	89.7	1000	1000	1130	1080	104	99	70-130	5	20	

MATRIX SPIKE SAMPLE: 1670676

Parameter	Units	60207318003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	ug/L	<0.56	1000	1020	102	70-130	
Lead, Dissolved	ug/L	13.0	1000	1020	101	70-130	
Zinc, Dissolved	ug/L	13.5J	1000	1020	101	70-130	

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QUALITY CONTROL DATA

Project: NPDES (Leadwood)
Pace Project No.: 60207041

QC Batch: WET/58333 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 60207041001, 60207041002, 60207041003

METHOD BLANK: 1667245 Matrix: Water
Associated Lab Samples: 60207041001, 60207041002, 60207041003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<5.0	5.0	5.0	11/12/15 12:12	

SAMPLE DUPLICATE: 1667246

Parameter	Units	60206993001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	10	10	0	10	

SAMPLE DUPLICATE: 1667248

Parameter	Units	60207035002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	10	9.0	11	10	D6

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QUALITY CONTROL DATA

Project: NPDES (Leadwood)

Pace Project No.: 60207041

QC Batch: WET/58334

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 60207041004

METHOD BLANK: 1667249

Matrix: Water

Associated Lab Samples: 60207041004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<5.0	5.0	5.0	11/12/15 12:21	

SAMPLE DUPLICATE: 1667250

Parameter	Units	60207017001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	15.0	17.0	12	10	D6

SAMPLE DUPLICATE: 1667251

Parameter	Units	60207026003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	158	152	4	10	

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QUALITY CONTROL DATA

Project: NPDES (Leadwood)

Pace Project No.: 60207041

QC Batch: WETA/36900

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Associated Lab Samples: 60207041001, 60207041002, 60207041003, 60207041004

METHOD BLANK: 1668180

Matrix: Water

Associated Lab Samples: 60207041001, 60207041002, 60207041003, 60207041004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	<0.24	1.0	0.24	11/13/15 10:32	

LABORATORY CONTROL SAMPLE: 1668181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.8	96	90-110	

MATRIX SPIKE SAMPLE: 1668182

Parameter	Units	60207041004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	494	250	710	86	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1668183 1668184

Parameter	Units	60207160001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	36.5	25	25	59.8	60.0	93	94	80-120	0 15	

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QUALIFIERS

Project: NPDES (Leadwood)

Pace Project No.: 60207041

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES (Leadwood)
Pace Project No.: 60207041

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60207041001	39574/LEADWOOD DOWNSTREAM	EPA 200.7	MPRP/33894	EPA 200.7	ICP/24932
60207041002	39575/LEADWOOD UPSTREAM	EPA 200.7	MPRP/33894	EPA 200.7	ICP/24932
60207041003	39576/LEADWOOD 001	EPA 200.7	MPRP/33894	EPA 200.7	ICP/24932
60207041004	39577/LEADWOOD 002	EPA 200.7	MPRP/33894	EPA 200.7	ICP/24932
60207041001	39574/LEADWOOD DOWNSTREAM	EPA 200.7	MPRP/33964	EPA 200.7	ICP/24976
60207041002	39575/LEADWOOD UPSTREAM	EPA 200.7	MPRP/33964	EPA 200.7	ICP/24976
60207041001	39574/LEADWOOD DOWNSTREAM	SM 2540D	WET/58333		
60207041002	39575/LEADWOOD UPSTREAM	SM 2540D	WET/58333		
60207041003	39576/LEADWOOD 001	SM 2540D	WET/58333		
60207041004	39577/LEADWOOD 002	SM 2540D	WET/58334		
60207041003	39576/LEADWOOD 001	SM 2540F	WET/58319		
60207041004	39577/LEADWOOD 002	SM 2540F	WET/58319		
60207041001	39574/LEADWOOD DOWNSTREAM	EPA 300.0	WETA/36900		
60207041002	39575/LEADWOOD UPSTREAM	EPA 300.0	WETA/36900		
60207041003	39576/LEADWOOD 001	EPA 300.0	WETA/36900		
60207041004	39577/LEADWOOD 002	EPA 300.0	WETA/36900		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 60207041



60207041

Client Name: DRC

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 774938773997

Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☒ Other ☐

Thermometer Used: CF +0.5 T-239 / CF +0.5 T-262

Type of Ice: Wet Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 3-0

Date and initials of person examining contents: pu 11/11/15

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>S.S</u>
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses	Matrix: <u>WT</u>	13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:
Additional labels attached to 5035A vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	18.

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted:

Date/Time:

Comments/ Resolution:

Project Manager Review:

Date:

11/11/15

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Required Client Information:

Required Project Information:

Invoice Information:

Company: The Doe Run Company		Report To: Amy Sanders	Attention: Amy Sanders	REGULATORY AGENCY		Page: 1 of 1
Address: PO Box 500		Copy To:	Company Name: The Doe Run Company			
Email To: asanders@doerun.com		Purchase Order No.:	Address: PO Box 500, Viburnum, MO 65568	<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	COC#: 2937
Phone: (573) 689-4535	Fax: (573) 244-8179		Place Quote Reference	<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	
Requested Due Date/TAT: 5 To 7 Days	Project Name: NPDES (Leadwood)	Project Number:	Place Project Manager	Site Location	MO	
			Place Profile #	STATE:		

Page: 1 of 1

COC#: 2937

60207041

[illegible]